REMARKS

Entry of this amendment, and reconsideration and withdrawal of all ground of rejection are respectfully requested in light of the above amendments and the following remarks. Claims 1-11 remain pending herein.

(1) Claims 1-11 stand rejected under 35 U.S.C.§112, second paragraph because the structure of the organic material of the bridge during a programmed state and non-programmed state allegedly requires more definition. Applicants respectfully traverse for the reasons indicated herein below.

Applicants have amended claim 1 to recite:

> **wherein said electrically conducting bridge comprises** an electrically conducting organic material**, the bridge** having **both** a non-programmed **state** and a programmed state, **wherein in a non-programmed state the bridge comprises a first conduction state in which a conduction current level that flows through the organic material between the first electrode and the second electrode of the memory element below a transition temperature, and a programmed state comprises a second conduction state in which the current level flows through the organic material by at least a predetermined amount less than said first conduction current level when the organic material is above said transition temperature;**

Support for the above is found in the specification at least at page 2, lines 20-27.

(2) There is a comment in the Office Action regarding the drawings and the shape of the memory element and conductor track. Applicants, in a good faith effort to comply, presume that it was intended to say in the Office Action that claim 5 recites a memory element having a meandering or spiraling shape, but the drawings show the conductor track having the spiraling or meandering shape.

First, it should be noted that an integrated circuit having a memory element is claimed, with the memory element comprising electrodes connected by an electrically conductive bridge.

Applicants note that in one particular embodiment disclosed at page 5, lines 25-26, the bridge is embodied as a conductive track. Further, the specification at page 10, lines 24-26 discloses that "these conductor tracks have the function of the bridge in the first memory element 30, their ends being the electrodes 26 and 28."

Thus, as memory element 30 can be comprised of first and second electrodes 26, 28 connected by a meandering or spiral conductive track (a.k.a. bridge) connect therebetween, claim 5 is correct in saying that the memory element has a spiraling or meandering shape, as it can be comprised of spiraling or meandering elements.

Reconsideration and withdrawal of this ground of rejection are respectfully requested.

(3) Claims 1-11 stand rejected under 35 U.S.C.§102(e) as allegedly being anticipated by Chang et al. (U.S. 6,159,842 hereafter "Chang"). Applicants respectfully traverse for the reasons indicated herein below.

The present invention is distinguishable from Chang because Chang is no different than the prior art disclosed by the applicants, in that VIAs are etched and/or mechanically compressed and filled with metal plugs to complete multilevel connections. Thus, the vias are programmed mechanically.

In contrast, the presently claimed invention comprises an organic material used as an electrically conductive bridge between two electrodes of a memory element, wherein the programming of the memory element (programmed state) occurs by applying a

voltage to heat the organic material of the electrically conductive bridge to partially or fully interrupt current flow, so that the element can be programmed by the transition in current, without the need for mechanical compressing VIAs as in disclosures such as Chang. For example, the specification discloses at page 10, lines 15-16 that a voltage is thus present across the first memory element 30 which is sufficient for programming the memory element from "1" to "0" (i.e. the claimed recitation "wherein the organic material is programmed by heating the memory element to ~~a~~ **said** transition temperature"). Also, please see the specification at page 2, lines 20-22.

Applicants respectfully submit that Chang fails to anticipate any of the instant claims as this reference fails to disclose all of the claimed elements. Nor would a person of ordinary skill in the art have found any of the instant claims obvious in view of Chang. Reconsideration and withdrawal of this ground of rejection are respectfully requested.

For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

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